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4 RESEARCH ANALYSIS

The summary of the estimated results of Regression Models is listed below.

Table 4.1. Summary of estimated results of regression models using autocorrelation corrections.

Regression Model	Data Panel Regression					
Dependent Variable: CASH HOLDINGS						
	Panel Least Square			Cross-section Fixed		
Estimator:	Coefficient	t-Statistic		Coefficient	t-Statistic	
C	0.096	2.622	***	0.091	1.652	*
GROWTH	0.002	1.366		0.003	1.921	*
SIZE_RILL	0.009	4.296	***	0.008	1.935	*
DDISTRESS	-0.005	-1.180		-0.006	-1.437	
RV	2.295	22.832	***	2.450	23.071	***
CFV	-0.034	-1.825	*	-0.011	-0.546	
CFLOW	0.034	2.527	**	0.036	3.136	***
CAPEX	-0.001	-0.029		-0.010	-0.341	
CONVERT	-0.078	-8.088	***	-0.056	-4.107	***
LEV	-0.067	-4.086	***	-0.057	-3.515	***
DDIV_DPS	0.007	4.256	***	0.008	4.670	***
CCC	0.000	-0.277		0.000	0.212	
DEBTMAT	0.018	3.613	***	0.007	1.154	
TANGIBLB	-0.201	-11.078	***	-0.180	-9.036	***
AR(1)	0.775	40.620	***	0.441	8.001	***
Adjusted R-squared	0.860			0.882		
Durbin-Waston stat	2.101			2.089		
Sum squared Resid	2.452			1.762		
Obs	1516			1516		

This table presents the results of estimated estimations of cash holdings from 1516 company years. The dependent variable is CASHHOLDINGS. CASHHOLDINGS = (cash + short-term investment)/total assets, GROWTH = sales growth for 1 year, SIZE_RIIL = ln (Total Assets/GDP Deflator), DDISTRESS = dummy variable is 1 if TIER <1, DDISTRESS = 0 if not .. RV =residual value of CASHHOLDINGS squared, CFV = standard deviation of CFLOW for the last 3 years, CFLOW = (net income + depreciation & amortization)/total assets, INV = Capital Expenditure/Total Assets, CONVERT = (Current Assets-Cash-Short-Term Investments)/Total Assets, LEV = Total Debt/Total Assets. LEVs exceeding 1 were excluded from the sample. DDIV_DPS = dummy variable 1 if the company pays dividends in the year concerned, and zero if it does not pay dividends, CCC (Cash Coversion Cycle) = Age of Receivables + Age of Inventory-Age of Debt. More than 365 days of CCC were excluded from the sample. MATURITY = Long-term Debt/Total Debt, TANGIBLE = (Inventory + PPE net + Other Tangible Assets)/Total Assets; *** = significant at level 1%, ** = significant at level 5% and * = significant at level 10%.

5 DISCUSSION AND IMPLICATION

The coefficient of GROWTH aligns with the statement of Opler, (1999), Ferreira, (2004), and (Ozkan, 2004), with the view that high-growth companies face expensive funding costs, in an attempt to make the variable coefficients positive, while the SIZE coefficient is significant and positive in all models. These results confirm the findings of Shah (2011), Opler, (1999), which stated that larger companies possess the most appropriate cash to accumulate position

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because of the elevation in profits generated. Furthermore, the findings contradict the information asymmetry hypothesis, the transaction cost hypothesis, and the economies of scale in asset management, while financial difficulties (DDISTRESS) has no effect on cash holdings. In addition, the sign indicates the propensity for companies with financial difficulties to reduce the level of cash holdings, although some reports that stipulated the anticipation of financial difficulties. Meanwhile, the RV coefficient was expressed as positive and significant for volatility; thus, companies with high cash holding tend to hold extra cash (Islam, (2012), which is in line with the report by Shah, (2011), Ozkan, (2004). Conversely, the negative sign in the coefficient of cash flow volatility (CFV) is not significant, which insites, arguments on the ability for companies with more volatile cash flow to accumulate unsupported cash holdings. Therefore, both proxies (RV and CFV) are capable of substituting for each other, and the sign of the CFLOW coefficient is consistent with the view (Shah, 2011); (Ferreira, 2004). Capital expenditure (CAPEX) supports the argument based on the assumption that investment as a form of collateral and increased need for investment causes a decline in cash holdings, although this does not contribute to the dependent variable. Meanwhile, the current asset variable as a cash substitution (CONVERT) is supported in an attempt to foster the replacement with current assets, which is consistent with the findings of (Shah, 2011), (Ogundipe, 2012), (Islam, 2012). LEVERAGE (LEV) were all negative and significant and is used as a substitution to hold cash, in order for companies to submit new debt on instances where a lack in cash holdings is observed. Also, another explanation assumes debt as a proxy issued by companies in order for the relationship with cash holdings to be negative, or that the cost of holding cash increases with an elevation in the company's debt. Furthermore, the coefficient of dividend payment (DDIV_DPS) is attributed as positive and significant, confirming that the company paying the dividend is in the right position to maintain significant cash holdings, and a similar result was expressed in Shah's research (2011). Furthermore, all-cash conversion cycle (CCC) ratios were positive and not significant for all specification models, while Debt maturity (DEBTMAT) was positive and significant, which was contrary to the maturity matching and the financial difficulty hypothesis. These findings indicate the company's panic for bankruptcy, subsequently leading to the reservation of cash holdings for long-term debt. Tangible assets (TANGIBLE) possess the capacity to protect companies from the risk of financial difficulties, which is why the relationship becomes negative with cash holdings, supported by the findings of (Islam, 2012). The policy implication revolves around the provision of input to the government, in order to control external funding costs, consequently eliminating the need for companies to face high cash holding costs. Meanwhile, the high transaction costs encourage companies to maintain excessive cash holdings for them to avoid under-investment problems, although there is a potential to cause excess cash holdings, which paradoxically harm the external financiers.

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